

Patent Claims

A process for manufacturing of so called super capacitors respectively Quantum Batteries based on the 1.)physical effect through which electrical energy can be stored in resonance excited very small crystalline chemically dipolar particles or layers becoming thereby conductive and which are separated by an electrically insulating media, whereas these storage materials as a mixture of fluid resin e.g. a polymer and of pre-ground nanometer crystals are applied by means of electrostatic spraying on a 2.)preformed compound film which enclosed isolated metallic foil acts as 3.)counter electrode thereby creating a strong electrical field and together with capacitive effects causing strong surface forces which enable the forming of geometrically exact and compact layers and the field-aligning of the dipole crystals, where after the coated films being cut and eventually fabricated to 4.)flat-capacitor or 5.)wound-capacitor, such that these geometrically very precise, homogenous and compact layers fulfill the charging conditions of a Quantum Battery and that with such Quantum Batteries 6.)electrical energy can be stored in the order of magnitude of more than 15 MJ/kg. In accordance with **claim 1.)** these materials with special electrical properties can also be applied on flat surfaces by means of chemical or physical 7.)vapor deposition whereby the electrical storage layers are alternatively deposited with the insulation layers such that these are sandwich-like overlapping for fixation in order that after annealing at above 800 ° C for achieving Rutile phase and that after cooling, the storage layers do not delaminate because of different thermal expansion coefficients and eventually are forming a 8.)layer capacitor having extreme thin and accurate layers which proves to fulfill the loading conditions for a Quantum Battery and that with this Quantum Battery 9.)electrical energy at voltages in the range of few volts to thousands of volts and with densities of over 15 MJ/kg can be stored extremely fast.